

· No.2681B

LA4597

2-Channel Power Amp for Radio-Cassette Recorders

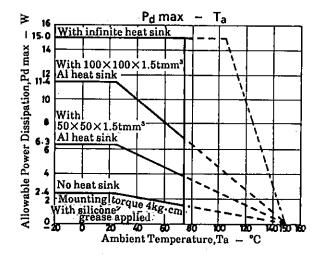
Functions

- · On-chip thermal shutdown circuit
- · On-chip standby switch

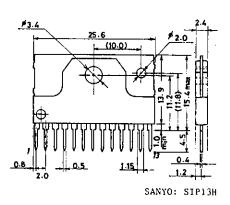
Maximum Ratings at Ta = 25°C				unit
Maximum Supply Voltage	$ m V_{CC}$ max		18	V
Allowable Power Dissipation	Pd max	With $100 \times 100 \times 1.5$ mm ³ Al heat sink	11.4	W
Operating Temperature	Topr	-20 to +75		°C
Storage Temperature	Tstg	-40 to +150		°C
Operating Conditions at Ta=25°C				unit
Recommended Supply Voltage	V_{CC}		9,12	V
Recommended Load Resistance	$ m R_L$		3.2	Ω
Operating Voltage Range	V_{CC} op	4.	2 to 16.0	V

Operating Characteristics at Ta=25°C, $V_{CC}=9V$, f=1kHz, $Rg=600\Omega$, $R_L=3.2\Omega$, VG=50dB

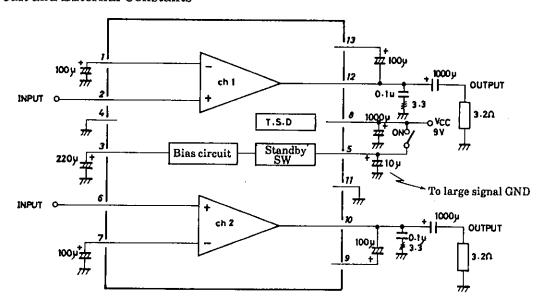
			min	typ	max	unit
Quiescent Current	Icco		10	20	40	mΑ
Voltage Gain	VG		47	49	51	dΒ
Output Power (1)	Po1	THD=10%	2.2	2.9		W
Output Power (2)	Po2	$THD=10\%, V_{CC}=12V$		4.6		W
Total Harmonic Distortion	THD	$V_0 = 2V$		0.3	1.0	%
Input Resistance	r_i		20	30		$\mathbf{k}\Omega$
Output Noise Voltage	V_{NO1}	Rg = 0,B.P.F. = 20Hz to $20kHz$		0.4	1.0	mV
	V_{NO2}	$Rg = 10k\Omega$, B.P.F. = 20Hz to 20kHz		0.6	2.0	mV
Ripple Rejection	\mathbf{Rr}	$Rg = 0, fr = 100Hz, V_{CC}r = 150mV$	40 .	50		dB
Channel Separation	CH Sep	$Rg = 10k\Omega, Vo = 0dB$	45	55		dΒ
Standby Current	Isd				10	μA
Output Power (2) Total Harmonic Distortion Input Resistance Output Noise Voltage Ripple Rejection Channel Separation	$\begin{array}{c} Po2 \\ THD \\ r_i \\ V_{NO1} \\ V_{NO2} \\ Rr \\ CH Sep \end{array}$	$THD = 10\%, V_{CC} = 12V$ $V_0 = 2V$ $Rg = 0, B.P.F. = 20Hz \text{ to } 20kHz$ $Rg = 10k\Omega, B.P.F. = 20Hz \text{ to } 20kHz$ $Rg = 0, fr = 100Hz, V_{CC}r = 150mV$	20 40 .	4.6 0.3 30 0.4 0.6 50	1.0 2.0	W % kΩ mV mV dB dB



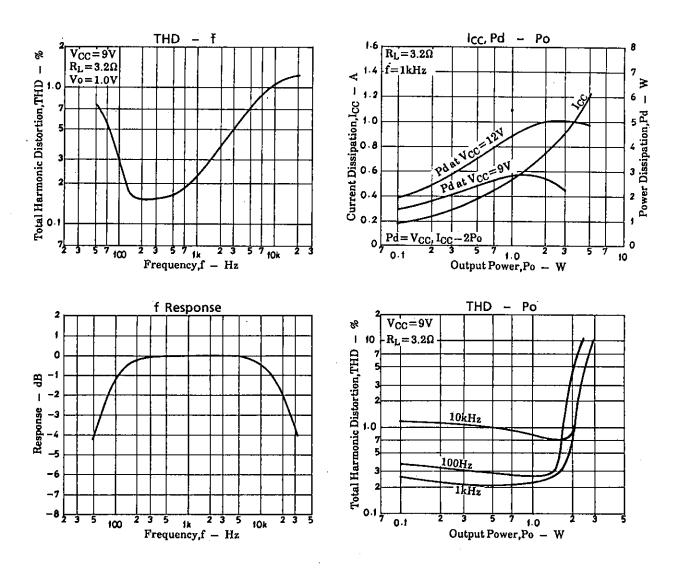
Package Dimensions (unit: mm) 3107

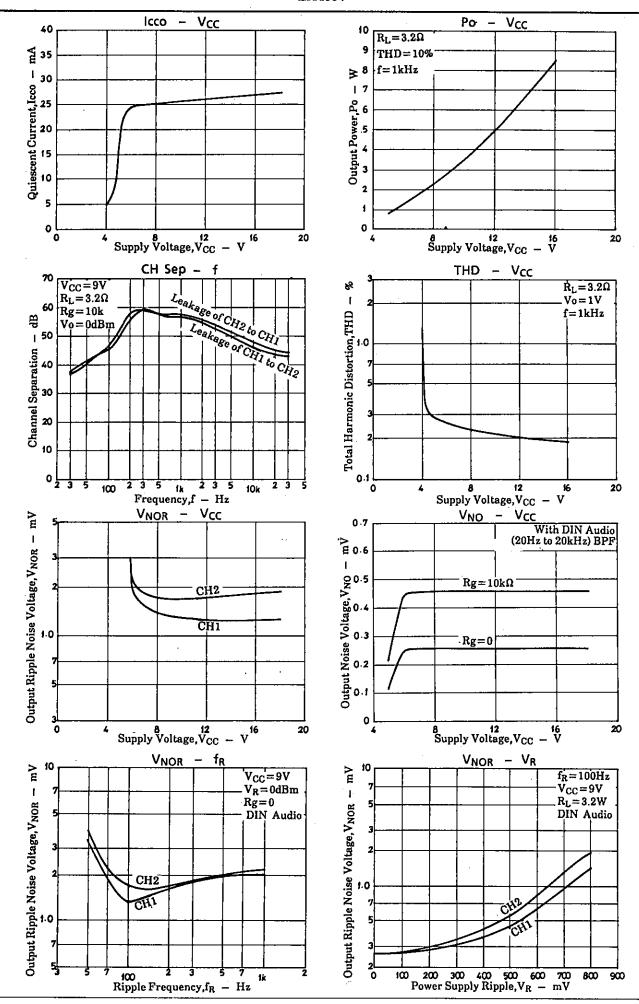


Test Circuit and External Constants

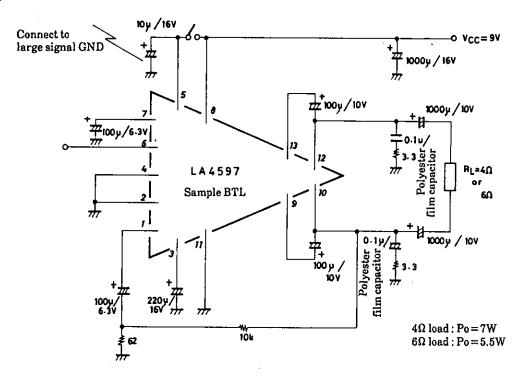


Unit (resistance: Ω, capacitance: F)





Sample BTL



Unit (capacitance: F)

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